

**REMARKS/ARGUMENTS**

Claims 1-34 remain pending in the application. The claims remain rejected over the reference cited in the Office Action dated March 24, 2006. Applicant respectfully traverses the rejections and requests reconsideration and allowance of the claims.

**Discussion of Rejections Under 35 U.S.C. §103(a)**

Claims 1-34 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,966,227 to Dubois et al. (hereinafter Dubois).

In order to establish a *prima facie* case of obviousness, the prior art references must teach or suggest all claim limitations. There must be some suggestion or motivation to modify the reference or combine the reference teachings. Also, there must be a reasonable expectation of success in the combination or modification. Applicant respectfully believes the reference fails to teach or suggest all claim limitations.

**Claim 1** recites a method for identifying a friend or foe in a combat identification system that includes the steps of "selectively reflecting the IR transmit signal by opening and closing the retroreflector obturator according to a response code of the day (RCOD)", and "combining the received RCOD with the TCOD to identify the combat response unit as friend or foe." These features are not taught nor suggested by Dubois.

The Examiner alleges that Dubois describes "selectively reflecting the IR transmit signal by opening and closing the retroreflector obturator according to a response code of the day (RCOD)" at col. 6, ll. 45-53. In particular, the Examiner alleges that Dubois describes a filter 18 that restricts transmission, and restricting transmission reads upon the limitation "opening and closing". See, *Office Action*, dated August 28, 2006, at page 2. Furthermore, the Examiner contends that the claimed RCOD is described in Dubois as "the wavelength of an interrogating beam 7" and "the wavelength that can be emitted from the laser paint coating." See, *Id.*

The Examiner argues that the Transmit Code of the Day (TCOD) corresponds to the wavelength of the IR signal 7. Office Action, dated August 28, 2006, at page 4. The Examiner further argues that the Receive Code of the Day (RCOD) correspond to the wavelength

of an interrogating beam 7 and the wavelength that can be emitted from the laser paint coating. *See, Id.*, at page 2.

However, it is clear from Applicant's Specification that both the TCOD and RCOD correspond to *information that is contained or otherwise modulated* onto the IR signals, and does not refer to the wavelength of the signals. For example, Applicant's FIGs. 4-7 show a code generator operating on logic signals. Furthermore, FIG. 7 illustrates an example of pulse positions corresponding to an exemplary TCOD and RCOD. The corresponding text describes the timing of the pulses. *Specification*, at page 15, ll. 6-28.

The Examiner previously understood the meaning of the term "TCOD" as evidenced by the citations to Gerber (6,450,816) in the prior Office Action, dated September 15, 2005. However, the Examiner, in the present action and previous action, interprets the terms "TCOD" and "RCOD" in a manner that is contrary to what is described in Examiner's Specification.

It is clear that Dubois fails to describe any manner in which the responder can include a RCOD in a reflected signal. Instead, Dubois describes a responder that can generate emissions based on laser paint that can be energized by the interrogation beam. *See, Dubois*, at col. 4, ll. 20-29 and ll. 38-43.

The laser paint absorbs the interrogation signal in order to generate the emission. *Id.*, at col. 4, ll. 37-42. Thus, there is no reflected interrogation signal when the responder generates the emission. Because the responder absorbs rather than reflect the interrogation signal, Dubois also fails to describe "receiving the reflected IR transmit signal and RCOD at the combat interrogatory unit."

Dubois relies on the generating of particular wavelength emissions by laser paints on the responder in order to identify the responder. The identification of the responder is not based on information included in a reflected transmit signal, but is instead based on the emissions generated locally at the responder. The signals from the responder are not reflected signals, but in contrast, are wavelengths generated by laser paints on the responder.

Therefore, Dubois fails to describe selectively reflecting the IR transmit signal by opening and closing the retroreflector obturator according to the RCOD. A *prima facie* case of obviousness has not been established because Dubois fails to describe every claimed feature. Applicant respectfully requests reconsideration and allowance of claim 1.

**Claims 11, 23, and 31** recite similar features to those discussed above in relation to claim 1. In particular, claim 11 includes "means for opening and closing the obturator means according to the RCOD". Similarly, claim 23 includes "means for opening and closing the obturator means according to a response code of the day".

Claim 31 recites "means for combining the received RCOD with the TCOD to identify the source of the reflected IR transmit signal as friend or foe." As described above in relation to claim 1, Dubois fails to describe a reflected transmit signal having a RCOD. Instead, Dubois receives a reflected interrogation signal only when the responder is not friendly. *See, Dubois*, at Col. 4, ll. 23-27. Thus, Dubois fails to describe combining any processing of an RCOD and TCOD in order to identify a "source of the reflected IR transmit signal as friend or foe."

Claims 11, 23, and 31 are believed to be allowable at least for the reasons discussed above in relation to claim 1. Applicant respectfully requests reconsideration and allowance of claims 11, 23, and 31.

#### Discussion of Dependent Claims

**Claims 2-10, 12-22, 24-30, and 32-34** depend from one of claims 1, 11, 23, or 31 and are believed to be allowable at least for the reason that they depend from an allowable base claim. Each of the dependent claims may have patentable features that distinguish over the prior art, but discussion of each individual claim is unnecessary in light of the allowability of the independent base claims.

The Examiner contends that Applicant admits to those features of the dependent claims. However, this is an erroneous reading of Applicant's prior response. Indeed, Applicant explicitly noted that each of the dependent claims may have patentable features that distinguish over the prior art, but discussion of each individual claim is unnecessary in light of the

allowability of the independent base claims. The Examiner's rejection of the dependent claims is moot in light of the allowability of the base claims.

Applicant provides discussion of some of the dependent claims to illustrate the independent basis for allowability. Applicant's discussion of only a portion of the dependent claims is not to be interpreted as conceding any grounds for rejection.

**Claim 2** includes "combining a first code of the day (COD) stored at the combat interrogatory unit with a randomly-generated number (RGN) to produce the TCOD" and also includes "combining the received TCOD with a second COD stored at the combat response unit to produce the RCOD." These features are neither taught nor suggested by Dubois.

Dubois fails to teach or suggest a Code of the Day that is combined with a RGN at the combat interrogatory unit. The Examiner contends that "randomly generating codes from a stored database is well known." *Office Action*, at page 6. However, Applicant claims "combining a first code of the day (COD) stored at the combat interrogatory unit with a randomly-generated number (RGN) to produce the TCOD."

The Examiner fails to relate randomly generating codes with the claimed feature. Dubois fails to describe any randomly generated number, and fails to teach or suggest any TCOD that is generated based on a RGN and COD. Even if randomly generating codes is well known, as alleged by the Examiner, the Examiner fails to relate how such knowledge leads one to use a RGN with a COD in a reference that teaches neither.

Moreover, the Examiner contends that the TCOD is the wavelength of the interrogation signal in Dubois. The Examiner fails to describe how one of ordinary skill in the art would utilize a RGN to modify the wavelength of the interrogation signal, nor does the Examiner provide any discussion as to how such a modification would be obvious. Thus, the Examiner fails to establish a *prima facie* case of obviousness, and Applicant respectfully requests allowance of claim 2.

**Claim 3** includes "deactivating the combat response unit responsive to a doffing of the helmet." The Examiner contends that it is obvious to shut down the combat response unit when not in use in order to save power. Applicant traverses the Examiner's grounds of rejection.

Applicant respectfully requests that the Examiner provide support for the grounds of rejection. Applicant contends that it is not well known to include a helmet mounted combat response unit, nor is it obvious to deactivate the unit upon doffing of the helmet. Doffing the helmet does not necessarily relate to taking the unit out of service. Claim 3 is believed to be allowable because the Examiner fails to recite any basis for the grounds of rejection.

**Claim 4** includes “accepting biometric data at the combat response unit” and also includes “activating the combat response unit responsive to the biometric data.” The Examiner contends that security measures such as biometrics is known in military weapons. *Office Action*, at page 6. However, the Examiner fails to recite any reasoning or motivation for including the ability to accept biometric data in a combat response unit, which is not a military weapon. Moreover, the Examiner fails to relate the knowledge of biometrics with activating a combat response unit. Claim 4 is believed to be allowable because the Examiner fails to recite any basis for the grounds of rejection.

**Claim 6** includes “generating an arrival quadrant signal representing the direction of arrival of the IR transmit signal at the combat response unit.” The Examiner contends that it is well known to provide directional signaling in military detection applications. However, the Examiner fails to relate directional signaling with an ability to detect a direction of arrival. Additionally, the Examiner fails to recite any basis, motivation, or suggestion of generating an arrival quadrant signal, nor how directional signaling teaches or suggests generating an arrival quadrant signal. Claim 6 is believed to be allowable because the Examiner fails to recite any basis for the grounds of rejection.

The other dependent claims include features similar to those described above, and Applicant explicitly requests the Examiner provide some basis for the grounds of rejection. Applicant reiterates that the dependent claims include distinct patentable features, but that it is unnecessary to address each dependent claim based on the allowability of the independent claims from which it depends.

Applicant respectfully request reconsideration and allowance of claims 2-10, 12-22, 24-30, and 32-34.

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Amdt. dated October 30, 2006  
Amendment under 37 CFR 1.116 Expedited Procedure  
Examining Group 2613

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**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,



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